TELEHEALTH

FY 2001 Performance Plan, Revised Final FY 2000 Plan and FY 1999 Performance Report

The Telehealth Program has been created to coordinate HRSA's telehealth activities. Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. The Office builds upon and advances HRSA's previous efforts to use telecommunications to improve technical assistance to HRSA's grantees, to more effectively train health care providers, to encourage linkages for knowledge exchange, and to capitalize and replicate lessons learned in providing quality health care to underserved individuals, families, and communities. The Office's responsibilities include telehealth policy and program development, telemedicine demonstrations in medically underserved and hard-to-reach areas, technical assistance to HRSA grantees, and to local and state health officials, and the production of media tools to facilitate the dissemination of health care information to health care providers and the public.

The program included in this section is:

2.30 Telehealth

2.30 Program Title: Telehealth

Performance Goals	Targets	Actual Performance	Refer -ence
I. ELIMINATE BARRIERS TO CARE **A. Increase Utilization for Underserved Populations** **1.** Evaluate telehealth programs in urban communities which are designed to overcome barriers to health care for underserved individuals.	FY 01: 1 eval. study FY 00: NA FY 99: 1 study funded	FY 01: (01/02) FY 00: NA FY 99: 1 study funded	B237
IV. IMPROVE PUBLIC HEALTH AND HEALTH CARE SYSTEMS **A. Improve Information Development and Dissemination** 1. Complete evaluation of rural telemedicine grant program and publish findings.	FY 01: Data collection completed from encounter study and final report produced from both encounter and meta analysis studies; 2 papers submitted for publication. FY 00: Draft survey package submitted to OMB; data collection completed; meta analysis from ongoing individual program evaluations completed; FY 99: 1 paper on interim results	FY 99: Forms revised and limited field test. FY 98: Preliminary forms developed	B237

2. Increase the percent of HRSA grantees that are electronically linked to HRSA.	FY 01: 65% FY 00: 50% FY 99: 35%	FY 01: 01/02 FY 00: 01/01 FY 99: 30%* * Based on preliminary assessment of HRSA grantees with videoconferencing capabilities	**B237**
Total Funding: Telehealth ($ in 000's)	FY 2001: $ 5,612 FY 2000: $20,522 FY 1999: $13,118 FY 1998: n/a	Bx: page # budget HP: Healthy People goal	

2.30.1 Program Description, Context and Summary of Performance

Context:

Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. Modern health care increasingly involves the effective use of telehealth technologies to bring care to where the people are. HRSA has established a goal of reaching 100 percent access and 0 percent health disparities. Thus, these technologies are and will continue to be essential tools in achieving HRSA's goal. They are integral to the development of information systems and distance-learning programming that facilitate linkages between health care institutions over distance and provide educational opportunities for those who would otherwise not have or would have difficulty accessing such opportunities. Underserved communities, be they urban or rural continue to face significant challenges in obtaining the financial, physical, and human resources to take advantage of these technologies.

The Agency established the Office for the Advancement of Telehealth in May 1998 to coordinate HRSA's telehealth activities. The Office officially became operational in August of 1998. In FY 1999, it provided HRSA bureaus with technical assistance in the production of distance learning programming and administered 41 grants under the Rural Telemedicine Grant Program and the telehealth grants awarded under the Rural Outreach Grant Program. The latter two programs are authorized under Sections 301 and 330A of the Public Health Service Act, as amended by the health Care Consolidation Act of 1996. These grants are to designed to demonstrate the use of telehealth technologies in improving access to health care and access to educational and training programs for health professionals.

The Office also conducted an assessment of HRSA grantee's advanced telecommunications capacity to establish a baseline for the Agency's objective of achieving linkage to 75% of its grantees by FY 2003. Finally, it conducted a pilot project in 7 community health centers and 3 regional offices to assess whether a digital satellite system for low-cost, desk-top videoconferencing would provide adequate connectivity to meet the Agency's objectives. Results of the pilot were evaluated by November, 1999. These results were widely shared within the Agency. Based on the findings from the pilot, an investment strategy is being developed that will allow HRSA's grantee's to communicate via a uniform desk-top video-conferencing network (HRSA Network) by FY 2002 and will ensure that all HRSA grantees have access to the Internet. This network will meet all industry standards for open architecture and interoperablility, thereby facilitating connections to other systems within the Department.

Telehealth is an evolving field, reflecting the rapid technological developments in both the computer and telecommunications industries. Keeping up with these changes requires knowledge and skills that often go beyond the experience of any one agency or Department. The Office has been very fortunate in having the opportunity to staff the Joint Working Group on Telemedicine, the federal coordinating group with representation from all federal agencies active in telemedicine. Through this group, it has been able to identify areas of mutual interest with other federal agencies and avoid duplication of effort. The Office is currently collaborating with the Health Care Financing Administration on a study of current Medicare telemedicine payment policies, based on data from the Office's rural telemedicine grantees. Other grantee data has been used to document for the FCC regulatory barriers to the effective implementation of the universal service telecommunications discount program for rural health care providers. The Office also has collaborated with CDC on production of the Healthy People 2000 update for Maternal and Child Health and on a variety of distance learning activities, including the launch of Healthy People 2010. It has embarked on a joint effort with the HHS Office for Disease Prevention and Health Promotion to develop specific criteria by which we will judge whether a non-HHS web site should be linked to those in the Department. In FY 2000, the Office plans to work more closely with the Administration on Aging to promote and evaluate strategies for providing more effective services to the elderly through the use of modern telecommunications and computer technologies.

Within the Agency, the Office has worked closely with the Bureaus in the development of several distance learning initiatives related to quality of care, compliance with Y2K, and rural health. It has established a Distance Learning Working Group to coordinate distance learning activities within the Agency and to assist in evaluation of the pilot project for establishing the HRSA video-conferencing infrastructure. The Office has provided extensive technical assistance to the bureaus in the development of programmatic telehealth initiatives in domestic violence prevention, school-based health, and emergency medical services for children. In FY2000, it plans to work more closely with the bureaus in examining the potential of telehealth technologies for expanding dental services and

services on the Border, and for improving services to the elderly and disabled children's populations through tele-home care.

Perhaps the most important partnerships for the Office are those with our grantees. These partnerships provide critical information on the factors that contribute to or hinder the successful development of telehealth programs in underserved communities. As noted above, the grantees have provided data to HCFA on a number of telemedicine payment issues that are critical to their decisions on reforming the program. Ongoing grantee feedback through the progress reports, business plans, and clinical protocols have proved invaluable in our development of new programmatic initiatives. But perhaps most valuable is the ongoing dialog that occurs among the grantees and between the grantees and the Office through the Rural Telemedicine Listserv, a listserv managed by one of the grantees.

Program-wide performance:

The promise of telecommunications and information technologies for overcoming the barriers to health care of geography, cultural diversity, racial disparities, and poverty has not been realized in many of our most isolated rural and inner city urban communities. The ultimate success of the Office will be in promoting and developing affordable telehealth programs that improve access to health services and to educational and training programs for health professionals who serve these communities. At a very basic level, the increasing demand for technical assistance from the Office is one indicator of Given its responsibilities to develop HRSA's infrastructure for communicating with its grantees, the Office's performance can directly be evaluated by the development of that infrastructure and the extent to which it is used.

Program level data issues:

One of the most difficult challenges in the field of telehealth is defining exactly what is being measured. Telehealth technologies are neither one technology or one application, but a rapidly growing group of health care and distance learning applications that employ diverse telecommunications and computer technologies. Because of rapidly changing technologies, the cost/effectiveness of these programs may be difficult to generalize across programs or over time, but programmatic evaluations should provide valuable information on consumer and provider satisfaction, programmatic costs, utilization, and changes in access and availability of services. The Office has put in place several different data collection strategies to collect the necessary information to broadly assess the factors contributing to the long-term success and viability of telehealth programs in underserved communities. These efforts are described further under the specific objective for improving information development and dissemination (IV.A.1).

2.30.2 Goal-by-Goal Presentation of Performance

Goal I.A.1 Evaluate telehealth programs in urban communities which are designed to overcome barriers to health care for underserved individuals.

Context:

Despite a growth in investment and increased media attention, telehealth technologies remain largely untested. This is particularly true for applications in urban underserved areas because most of the attention and public monies for telehealth have been focused on the needs of rural communities. Urban residents, especially if they are poor or disabled, face significant barriers to obtaining health services. These barriers can be cultural, economic, and/or related to inadequate transportation. An elderly, poor women, living in an inner-city and traveling for 1 ½ hours to the specialist via public transportation, faces equally difficult barriers to overcome as one living on a farm.

In FY 1999, OAT managed a pilot project at Drew Medical School to expand tele-ophthalmology screening to other services in inner city housing projects. From this limited study and other similar studies in schools and community-based settings, it is clear that urban projects have the promise of improving access to health services for underserved, inner city population, as well as for expanding the information available on the effectiveness of telemedicine. Most current projects have largely been limited to rural areas, where sparse populations often result in a low volume of services that can be analyzed. By adding information from urban projects, the data available can be expanded to assess the value-added of telemedicine programs and provide support for policy initiatives related to telemedicine.

In the FY 2001 budget, a limited urban initiative is proposed for the Office. This initiative would fund one project that synthesizes and evaluates results from current ongoing urban telemedicine projects in urban inner city communities, comparing and contrasting them with those in rural communities. Based on the results of this project, recommendations will be made for development of a program to foster cost-effective telehealth services for underserved urban populations.

Indicator: Completion of report and recommendations for larger program.

Performance:

FY 1999: 1 grant awarded to Drew as a pilot

FY 2000: 0 grants; Office funding limited to rural projects only

FY 2001: 1 grant for evaluation

Data Issues:

The project will be asked to develop an evaluation framework, conduct a literature survey, develop a listing of rural projects from which to collect information, and prepare a meta-analysis of current findings, both from the published and unpublished literature.

Goal IV.A.1 Complete evaluation of Rural Telemedicine Grant Program and publish findings.

Context:

Although telehealth technologies are hardly unique among health services technologies in lacking evidence of their effectiveness, increasingly patients, clinicians, health care facilities, and government and private payers are asking for such evidence. As such, they challenge agencies like HRSA to carefully examine the practicality, value, and affordability of these technologies. This is especially true with regard to underserved communities which can ill afford to invest in technologies that are of little value in improving health care services.

Indicators: Final report and papers submitted/accepted in refereed journals; preliminary reports available both on the web and in print.

Performance:

In both the FY 2000 and FY 2001 budgets, two evaluations are supported -- a prospective study of encounters in all the rural grantee projects, and a meta-analysis of findings from individual rural telemedicine grant evaluation efforts. The encounter survey provides a potential opportunity to examine changes in programs over time, whereas the meta-analysis provides a way to synthesize findings from individual grantee evaluation efforts that have been underway since. These two studies will be supplemented by data collected in grantee progress reports. The encounter survey was originally to be conducted in FY99, but changes in the actual practice of telemedicine required a complete revamping of the data collection forms, including the development of special forms to document mental health and emergency medical consultations, as well as consultations provided during telemedicine "specialty clinics." As a result, the OMB package for approval of the data collection instruments will not be submitted until Spring 2000. This will delay data collection and the final report. Data from the meta-analysis of grantee data, which was not included in the FY99 Performance Plan, will be available in FY 2000.

FY 1999: Survey forms significantly revised; new forms for mental health, emergency medical, and specialty clinic services developed.

FY 2000: Survey forms to OMB for approval; data collection on encounter study begun. Data collection from meta-analysis completed and interim results available.

FY 2001: Data collection completed from encounter study and final report produced from both encounter and meta analysis studies; 2 papers submitted for publication in refereed journals.

Data Issues:

Rapid changes in both the telecommunications and computer industries complicate the evaluation of

these technologies. Costs are rapidly decreasing as new applications for the technologies are developed each day.

Goal IV.A.2: Increase the percent of HRSA grantees that are electronically linked to HRSA.

Context:

The explosion of technology, associated with computers and the Internet, as well as the advent of increased wireless communications, require development of new and more timely strategies for the Agency to communicate with its grantees and constituents. And perhaps even more important, the Agency is concerned that without a concerted effort on its part, including investments, many of its grantees will not have either the technical or fiscal resources to invest in the technologies they need to remain current in their fields. Thus the Agency developed the strategic goal that by 2003, at least 75% of its grantees are electronically linked to HRSA so as to be able to participate in distance learning, transmit medical data electronically, and link their staff and patients with experts in distant communities.

Indicators: Number and percent of HRSA grantees that have videoconferencing capabilities.
Percent of HRSA grantees that are linked to the Internet.

Performance:

Although several indicators could have been chosen, we have selected videoconferencing capability as an excellent indicator of a grantees electronic linkage capabilities. In particular, low cost desk-top videoconferencing systems provide grantees with capabilities to more easily participate in a range of distance learning, information sharing, and depending on the clinical service, significant exchange of clinical information. In FY 1999, HRSA assessed the telecommunications and computer capabilities of its current grantees. In brief, the assessment found that only 30% of HRSA grantees have videoconferencing capabilities in their facilities, although 83% had access to the Internet. Given initial results from the pilot study, it would seem feasible to initiate an investment strategy in FY 2000. Under one scenario, grantees would use HRSA grant funds to purchase and install the appropriate equipment for connecting to the HRSA videoconferencing Network and the Internet. Acknowledging HRSA's different grant cycles, it is expected that, at a minimum, the target of 65% grantees connected to the Network will be achievable by the end of FY 2001. Beginning in FY 2001, assessments of grantee capabilities would be phased into the applications and progress reports submitted under HRSA's various grant programs.

Baseline (FY 1999): 35% have videoconferencing equipment; 83% connected to Internet

FY 2000:	50% have videoconferencing equipment; 90% connected to Internet
FY 2001:	65% have videoconferencing; 100% connected to Internet

Data Issues:

Assessing the extent to which HRSA grantees are linked electronically is a relatively simple exercise, using assessment tools already under development. The key data collection challenge is capturing the actual usage of the network since once in place, the network can and should be used to meet a wide range of communication needs, not just communication with HRSA. A possible indicator of use might be the percent of HRSA grantees registered to participate over the Network in at least one HRSA-sponsored distance learning or technical assistance activity quarterly. Another indicator would be the percent of HRSA grantees that submit their progress reports electronically.